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ABSTRACT

The "impulsive responder" is a learner who avoids or eliminates confusing situations. Rather than acknowledging that a given problem solving task is too difficult, the impulsive responder simply perceives a different task--one that he or she has learned to solve. For the teacher there may be many different problems, but for the impulsive responder the problem is always the same--relief from the focus of attention. One procedure for teaching these students some very specific steps for "thinking through" a task is the Rationale, Steps, Model, Practice (aided), and Practice (independent) (RSM2P) approach. This procedure may be used to teach any cognitive strategy. The teacher begins by discussing the purpose of the strategy and how it can help the student. Next, the teacher provides the student with the steps of the specific cognitive strategy in writing and then models the use of the strategy while vocalizing the thinking and decision making process. The student can thus see and hear how to perform the task and become aware of how the thought process monitors the performance, and can then use the strategy with the assistance of the teacher. Finally, the teacher gives the student a number of similar tasks to determine if learning the strategy has effected more accurate performance. (HOD)

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RSM2P: A Meta-Cognitive Approach for Teaching Cognitive Strategies to Facilitate Learning

A paper presented at the Annual Meeting of the American Reading Forum
(2nd, Longboat Key, Fla., December 10-12, 1981)

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Our concern, in this paper, is with a very specific type of learner. The emphasis on "learner" is intentional. We are convinced that the student we are going to describe is not a "non-learner", "poor learner", "remedial learner", or any of many other labels this student has worn through educational history. A quote from Smith(1982) expresses our position on the ability of this learner to learn.

> "--- brains learn all the time. This is what brains are, organs for learning. Brains do not have to be provoked into learning or rewarded for learning any more than the lungs need a stimulus for breathing. Lungs breathe, that is their function, and lungs that do not breathe are dead lungs. Children learn all the time - this is the time bomb in every classroom. Children learn, though not perhaps what we think or hope we are teaching them. The question should not be "Why don't children learn?" but "What do children learn?";"What do we teach them in shcool?"
>
> A child's brain walks a narrow line between boredom on the one hand and confusion on the other, and as a result, children learn all the time. Children will not willingly get themselves into boring or confusing situations."(p.12)

The "impulsive responder" is a learner who avoids the confusing situations; or more accurately, elimates the confusing situations. In other words, rather than accept that a given problem solving task(e.g. finding the main idea, recognizing sequences, etc.) is either too difficult or that he/she is not sure how to solve it, the impulsive responder simply perceives a different task - one that he/she has learned to solve(remember Smith's description of the learning brain).

Any elementary teacher, secondary resource teacher, or reading specialist is familiar with the impulsive responder -- the student who frustrates us when we attempt to determine a pattern of responses in order to prescribe an appropriate educational program. Our response is usually that there is no pattern -- that the student does not appear to be using any strategy other than guessing.

However, our work indicates that the student is using a strategy - to solve a problem - but, his/her perception of the problem is not the same as the teachers. The teacher may perceive the problem as identifying the main idea, stating the main character, etc., etc.; however, the student perceives the problem as reducing the amount of time he/she must be the focus of attention. The impulsive responder solves the problem - efficiently. He/she uses a strategy, and that strategy works.

Remember Frank Smith's "learning brain"! How did the impulsive responder learn the strategy, and how did he/she learn to perceive the problem differently? For the

teacher there may be many different problems, but for the impulsive responder the problem is always the same - relief from the focus of attention.

Traditionally Kindergarten and First Grade teachers reinforce participation. One of their tasks seems to be to teach the child to socialize, to become part of the group. They do it beautifully! The child is praised for participating. In many cases responding appears to be more important than the response. The following dialogue, although a product of our imagination, is not unrealistic.

> The first grade class has just completed reading a humorous story about an animal who is always getting into trouble. The teacher asks, "Johnny, what kind of animal is the story about?" Johnny quickly replies, "A dog." The teacher smiles and acknowledges, "That's nice, Johnny; there was a dog in the story." Johnny received social reinforcement for his response and is proud - but, the teacher turns to Sally and comments, "But, what animal was the story about, Sally?" Sally replies, "An elephant". The teacher exclaims, "That's good!" and goes on to the next question.

Johnny is bright enough to know that an elephant and a dog are not the same. He also knows that what he said was "good". Thus, what he learns is to answer.

However, as Johnny gets older he finds that he does not always receive praise for his responses; in fact, some times his peers laugh and the teacher seems to be upset. In third or fourth grade he begins to wonder why his answer is seldom like the "correct" one. He even pauses when called upon - not really wanting to answer. This behavior irritates the teacher - it slows down the lesson. His classmates think that he is slow. Finally, he reinstitutes his old strategy, slightly modified. He replies simply -"I don't know". The lesson moves swiftly and the attention is not focused on the impulsive responder.

The impulsive responder becomes characterized as unmotivated and/or distracted. Parents and teachers are convinced that he never attempts to prepare for class or does his homework. In junior high and high school he may even utilize detractors (being the class clown or wise guy) to facilitate his removal before the task is presented.

We feel that the impulsive responder really does not know how to solve the problem. In the beginning the "correct" problem was not perceived. When reinforcement for responding ceased, the learner suffered confusion and reverted to the original strategy to avoid the confusion.

In our program we teach strategies for solving a given problem, or thinking through a task. The emphasis here is on "thinking through" a task. We have found that by

teaching these learners some very specific steps for "thinking through" a task, they can be successful(Huhn, 1977). However, we have also found that the method used in teaching the strategy is equally as important as the problem solving strategy. The strategy the learner is taught is a cognitive strategy; the method used in teaching the strategy is a metacognitive approach.

Where do we get the strategies we teach? As suggested by Meichenbaum(1982), we engage in introspection. We perform the task and note what we think, what we do, and what influences our decisions. Next, we look over our notes and develop sequential steps while adhering to two criteria: (1) enough steps to maximize the probability of success, and (2) not so many steps that the strategy is confusing. Cognitive strategies can be developed for any problem solving task. We currently have over thirty strategies for tasks in reading, writing, and mathematics.

Once the strategy is developed, the next step is to teach the learner how to use it. The important thing to note here is that we <u>do not</u> "teach the strategy", but rather, we teach the student "how to use the strategy". Memorizing some steps in a procedure would probably be another task that would frustrate the impulsive responder; however, learning how to "think through" a problem should relieve some of the frustration and confusion the impulsive responder has felt.

We have called our procedure for teaching cognitive strategies RSM2P: Rationale, Steps, Model, Practice(aided), and Practice(independent). This procedure is used to teach any cognitive strategy.

<u>Rationale</u>. We feel that it is important that learners know what they are being taught and why. This seems to be especially true for those learners who have not been academically successful. Therefore, we begin by discussing the purpose of the strategy and how using it is intended to help the learner.

<u>Steps</u>. Next, we provide the learner with the steps of the specific cognitive strategy in writing. We also go over each step orally to clear up any confusing vocabulary or wording.

<u>Model</u>. This is an extremely important step. The teacher uses the strategy to perform a task - "thinking out loud". That is, the teacher models the use of the strategy while vocalizing the thinking and decision making process. Thus, the learner can see and hear how to perform the task and become aware of how the thought process monitors the performance of the task.

Practice(aided). This time the student uses the strategy to solve the problem while "thinking out loud". The teacher assists the "thinking process" by reinforcing accurate student decisions and guiding the student to the correction of faulty decisions.

Practice(independent). Finally, the student is given a number of similar tasks, as determined by the teacher, to determine if learning the strategy has affected more accurate performance. Since the student is performing silently, it is no longer possible to observe if the student is using the strategy as written. However, that is not important. If the student is accurate, it does not matter if he/she has modified(personalized) the strategy. If the student is not accurate, then more modeling and practice is needed.

In conclusion, we have found that the impulsive responder does not appear to know how to begin to problem solve or to think through a task. Thus, by teaching cognitive strategies using a metacognitive approach, the impulsive responder is provided with a specific strategy for solving a problem and a model for using "thinking" to monitor his/her performances.

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